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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/406,798	09/28/1999	HIROSI TUNODA	991094	1948

23850 7590 01/26/2007  
ARMSTRONG, KRATZ, QUINTOS, HANSON & BROOKS, LLP  
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WASHINGTON, DC 20006

EXAMINER
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MISLEH, JUSTIN P

ART UNIT	PAPER NUMBER
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2622

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	01/26/2007	PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

<b>Office Action Summary</b>	<b>Application No.</b> 09/406,798	<b>Applicant(s)</b> TUNODA, HIROSI	
	<b>Examiner</b> Justin P. Misleh	<b>Art Unit</b> 2622	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 13 November 2006.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1 - 27 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1 - 27 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 28 September 1999 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                     | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |

## **DETAILED ACTION**

### ***Continued Examination Under 37 CFR 1.114***

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 13 November 2006 has been entered.

### ***Response to Arguments***

2. Applicant's arguments filed 13 November 2006 have been fully considered but are not persuasive.

### **Claim Rejections Under 35 U.S.C. §102**

Applicant states, "The present invention is a image pickup apparatus in which movie image including sound are stored in a storage medium (10) until a predetermined amount of data is reached and then transferring the image data into non-volatile recording medium (11). While the transfer is taking place image data continues to be recorded in the storage medium" (see Amendment, page 16). Applicant argues that in the present invention, after recording is started, image data is continuously stored in the storage medium in parallel with the recording of the image data irrespective of the amount of data stored in the storage medium during the image pickup operation. Applicant believes this feature is not taught or suggested by Fukushima et al.

The Examiner respectfully disagrees with Applicant's position. Fukushima et al. disclose an image pickup device that is capable of "stably executing continuous recording of an image signal by means of a simple arrangement with a small power consumption" (see column 3, lines 39 – 43). Fukushima et al. achieve this by providing "first storage means for temporarily storing image inputted thereinto and outputting the image data, second storage means having moving element for storing in a recording medium the image data outputted from the first storage means, ... after a predetermined amount of image data is stored in the first storage means" (see column 3, lines 43 – 54). As shown in figure 2, once the amount of image data (RECCNT) stored in the storage medium (6) is greater than a predetermined amount (CTH; see Step S10), the image data is transferred from the storage medium (6) to the hard disk drive (8) to enable continuous image recording (see Step S15). So long as SW2 is depressed (i.e., during the image pickup operation), image data is continuously captured and stored in the storage medium (6; see Step 5). In other words, the Examiner submits that after the predetermined amount of image data is stored in the storage medium, the continuous image pickup, storage, and recording operation is uninterrupted and unaffected by the total amount of image data that is captured or stored (see column 10, lines 23 – 47).

***Claim Rejections - 35 USC § 102***

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an

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international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

4. **Claims 1, 3, 4, 7, 9, 10, 13, 15, 16, 19, 21, 22, 24, 25 and 27** are rejected under 35

U.S.C. 102(e) as being anticipated by Fukushima et al.

5. For **Claims 1 and 19**, Fukushima et al. disclose, as shown in figures 1 and 2 and as stated in columns 6 (lines 17 – 25 and 32 – 39), 7 (lines 17 – 19 and 40 – 67), 8 (lines 6 – 13, 18 – 20, 27 – 31, and 37 – 46), and 10 (lines 3 – 53), a method for recording image, comprising the steps of:

storing (S8; see figure 2) image data continuously (while both SW1 and SW2 are depressed; see figure 2) obtained by an image pickup operation in a storage medium (memory part 6; see column 10, lines 23 – 29 and 38 – 48);

measuring (S11; see figure 2) the amount of the image data (RECCNT; see column 7, lines 17 – 19) stored in the storage medium (6) until reaching a predetermined amount of data (CTH; see column 8, lines 9 – 13; S11 is after the image pickup operation of S7);

and recording (S15; see figure 2) each piece of the image data being stored in the storage medium (6) into a non-volatile recording medium (8), after the measured amount (RECCNT) of the image data equals the predetermined amount (CTH),

wherein after starting the step of recording, the step of storing each piece of image data continuously obtained by the image pickup operation in the storage medium (6) and step of recording each piece of the image data being stored in the storage medium into the non-volatile recording medium (8) are performed continuously, in parallel and irrespective of the amount of the image data stored in the storage medium during the image pickup operation without pausing, interrupting or reducing the rate of recording the image data (see detailed explanation below).

Fukushima et al. disclose an image pickup device that is capable of “stably executing continuous recording of an image signal by means of a simple arrangement with a small power consumption” (see column 3, lines 39 – 43). Fukushima et al. achieve this by providing “first storage means for temporarily storing image inputted thereinto and outputting the image data, second storage means having moving element for storing in a recording medium the image data outputted from the first storage means, ... after a predetermined amount of image data is stored in the first storage means” (see column 3, lines 43 – 54). As shown in figure 2, once the amount of image data (RECCNT) stored in the storage medium (6) is greater than a predetermined amount (CTH; see Step S10), the image data is transferred from the storage medium (6) to the hard disk drive (8) to enable continuous image recording (see Step S15). So long as SW2 is depressed (i.e., during the image pickup operation), image data is continuously captured and stored in the storage medium (6; see Step 5). In other words, the Examiner submits that after the predetermined amount of image data is stored in the storage medium, the continuous image pickup, storage, and recording operation is uninterrupted and unaffected by the total amount of image data that is captured or stored (see column 10, lines 23 – 47).

6. For **Claims 7 and 22**, Fukushima et al. disclose, as shown in figures 1 and 2 and as stated in columns 6 (lines 17 – 25 and 32 – 39), 7 (lines 17 – 19 and 40 – 67), 8 (lines 6 – 13, 18 – 20, 27 – 31, and 37 – 46), and 10 (lines 3 – 53), an image pickup apparatus (see figure 1) comprising:

- an optical lens (1);

- an image pickup device (3) for taking image through the optical lens (1);

storage instructions device (10) for storing (S8; see figure 2) image data continuously (while both SW1 and SW2 are depressed; see figure 2) obtained by an image pickup operation (S7; see figure 2) of the image pickup device (3) in a storage medium (6);

record instructing device (10) for allowing a record (S15; see figure 2) the image data from the storage medium (6) to a non-volatile recording medium (8);

measuring device (14) for measuring of the amount of image data (RECCNT; see column 7, lines 17 – 19) stored in the storage medium (6) until reaching a predetermined amount of data (CTH; see column 8, lines 9 – 13; S11 is after the image pickup operation of S7); and

parallel processing instruction device (14), for instructing the record instructing device (14) to record into a non-volatile recording medium (8) each piece of the image data being stored in the storage medium (6) during the storing operation (Step S8) after the measured amount (RECNT) of the image data equals the predetermined amount (CTH),

wherein after starting the step of recording, the step of storing each piece of image data continuously obtained by the image pickup operation in the storage medium (6) and step of recording each piece of the image data being stored in the storage medium into the non-volatile recording medium (8) are performed continuously, in parallel and irrespective of the amount of the image data stored in the storage medium during the image pickup operation without pausing, interrupting or reducing the rate of recording the image data (see detailed explanation below).

Fukushima et al. disclose an image pickup device that is capable of “stably executing continuous recording of an image signal by means of a simple arrangement with a small power consumption” (see column 3, lines 39 – 43). Fukushima et al. achieve this by providing “first storage means for temporarily storing image inputted thereinto and outputting the image data,

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second storage means having moving element for storing in a recording medium the image data outputted from the first storage means, ... after a predetermined amount of image data is stored in the first storage means” (see column 3, lines 43 – 54). As shown in figure 2, once the amount of image data (RECCNT) stored in the storage medium (6) is greater than a predetermined amount (CTH; see Step S10), the image data is transferred from the storage medium (6) to the hard disk drive (8) to enable continuous image recording (see Step S15). So long as SW2 is depressed (i.e., during the image pickup operation), image data is continuously captured and stored in the storage medium (6; see Step 5). In other words, the Examiner submits that after the predetermined amount of image data is stored in the storage medium, the continuous image pickup, storage, and recording operation is uninterrupted and unaffected by the total amount of image data that is captured or stored (see column 10, lines 23 – 47).

7. For **Claims 13 and 25**, Fukushima et al. disclose, as shown in figures 1 and 2 and as stated in columns 6 (lines 17 – 25 and 32 – 39), 7 (lines 17 – 19 and 40 – 67), 8 (lines 6 – 13, 18 – 20, 27 – 31, and 37 – 46), and 10 (lines 3 – 53), an image pickup apparatus (see figure 1) where image data continuously (see column 10, lines 23 – 29 and 38 – 48) obtained by an image pickup operation (S7; see figure 2) are stored (S8; see figure 2) in a storage medium (6) and the image data being stored in the storage medium (6) are recorded (S15; see figure 2) into a non-volatile recording medium (8), the image pickup apparatus (see figure 1) comprising:

- an optical lens (1);

- an image pickup device (3) for taking image through the optical lens (1);

- a controller (14) which is capable of performing the following operations;



i) storing (S8) the image data (while both SW1 and SW2 are depressed; see figure 2) the storage medium (by means of memory controller 10);

ii) measuring (S11) the amount of the image data (RECCNT; see column 7, lines 17 – 19) stored in the storage medium (6) until reaching a predetermined amount of data (CTH; S11 is after the image pickup operation of S7);

iii) recording (S15) each piece of the image data being continuously stored in the storage medium (6) into the recording medium (8) after the measured amount (RECCNT) of the image data equals the predetermined amount (CTH),

wherein after starting the step of recording, the step of storing each piece of image data continuously obtained by the image pickup operation in the storage medium (6) and step of recording each piece of the image data being stored in the storage medium into the non-volatile recording medium (8) are performed continuously, in parallel and irrespective of the amount of the image data stored in the storage medium during the image pickup operation without pausing, interrupting or reducing the rate of recording the image data (see detailed explanation below).

Fukushima et al. disclose an image pickup device that is capable of “stably executing continuous recording of an image signal by means of a simple arrangement with a small power consumption” (see column 3, lines 39 – 43). Fukushima et al. achieve this by providing “first storage means for temporarily storing image inputted thereinto and outputting the image data, second storage means having moving element for storing in a recording medium the image data outputted from the first storage means, ... after a predetermined amount of image data is stored in the first storage means” (see column 3, lines 43 – 54). As shown in figure 2, once the amount of image data

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(RECCNT) stored in the storage medium (6) is greater than a predetermined amount (CTH; see Step S10), the image data is transferred from the storage medium (6) to the hard disk drive (8) to enable continuous image recording (see Step S15). So long as SW2 is depressed (i.e., during the image pickup operation), image data is continuously captured and stored in the storage medium (6; see Step 5). In other words, the Examiner submits that after the predetermined amount of image data is stored in the storage medium, the continuous image pickup, storage, and recording operation is uninterrupted and unaffected by the total amount of image data that is captured or stored (see column 10, lines 23 – 47).

8. As for **Claims 3, 9, 15, 21, 24, and 27**, in the rejection of the parent claims, the Examiner mainly relied upon the generic and very basic operation of Fukushima et al., as shown in figures 1 and 2 and their associated descriptions. However, the image pickup apparatus of Fukushima et al. incorporates several features not clearly shown in figures 1 and 2. The Examiner directs the Applicant to figure 3 and columns 10 (lines 58 – 67) and 11 (lines 1 – 26).

Fukushima et al. disclose converting an image signal obtained by the image pickup operation (S7) to digital image data in units of image frames (S/H – 4 and A/D – 5/1018); and compressing (compression circuit – 1020) the image data the image data before storing in the storage medium (6/1024).

9. As for **Claims 4, 10, and 16**, since Fukushima et al. disclose a continuous shot mode, it is inherent to Fukushima et al. that image data are compressed according to a motion picture compression form.

***Claim Rejections - 35 USC § 103***

10. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

11. **Claims 2, 5, 6, 8, 11, 12, 14, 17, 18, 20, 23, and 26** are rejected under 35 U.S.C. 103(a) as being unpatentable over Fukushima et al. in view of Anderson et al.

12. As for **Claims 2, 8, 14, 20, 23, and 26**, Fukushima et al. discloses a storage medium (6) for storing image data continuously obtained by an image pickup operation (S7) and a non-volatile recording medium (8) for recording the image data being stored in the storage medium (6). However, Fukushima et al. do not disclose storing in the storage medium (6) storage information including a start address and data length of the image data being stored in the storage medium (6) and recording the image data being stored in the storage medium (6) to the recording medium based on the storage information (8).

Anderson et al. also disclose, as shown in figures 2 – 4 and as stated in columns 3 (lines 54 – 64), 4 (lines 1 – 12, 21 – 25, and 41 – 67), and 5 (lines 1 – 48), a storage medium (RAM 60) and a non-volatile recording medium (Flash Memory 64) for storing image data. Anderson et al. disclose storing in the storage medium (60) storage information (in Data Cells 76) including a start address and data length (through the use of “pointers”) of the image data being stored in the storage medium and recording the image data being stored in the storage medium to the recording medium based on the storage information (processing requests and “Compressed Image Data in Flash Memory” flags). As stated in column 2 (lines 18 – 29), at the time the

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invention was made, one with ordinary skill in the art would have been motivated to have stored storage information in the storage medium, including a start address and data length of the image data being stored in the storage medium, and recording the image data being stored in the storage medium to the recording medium based on the storage information as taught by Anderson et al. in the storage medium of Fukushima et al. as a means to maintain the storage medium in a condition to receive new image data from the imaging device. Therefore, at the time the invention was made, it would have been obvious to one with ordinary skill in the art to have stored storage information in the storage medium as taught by Anderson et al. in the storage medium of Fukushima et al.

13. As for **Claims 5, 11, and 17**, in the rejection of the parent claims, the Examiner mainly relied upon the generic and very basic operation of Fukushima et al., as shown in figures 1 and 2 and their associated descriptions. However, the image pickup apparatus of Fukushima et al. incorporates several features not clearly shown in figures 1 and 2. The Examiner directs the Applicant to figure 3 and columns 10 (lines 58 – 67) and 11 (lines 1 – 26).

Fukushima et al. disclose converting an image signal obtained by the image pickup operation (S7) to digital image data in units of image frames (S/H – 4 and A/D – 5/1018); and compressing (compression circuit – 1020) the image data the image data before storing in the storage medium (6/1024).

14. As for **Claims 6, 12, and 18**, since Fukushima et al. discloses a continuous shot mode, it is inherent to Fukushima et al. that image data are compressed according to a motion picture compression form.

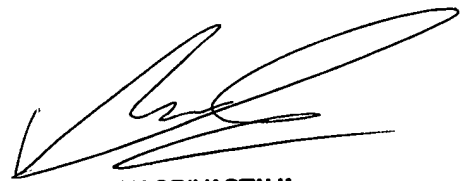
***Conclusion***

15. Any inquiry concerning this communication or earlier communications from the Examiner should be directed to Justin P Misleh whose telephone number is 571.272.7313. The Examiner can normally be reached on Monday through Friday from 8:00 AM to 5:00 PM.

If attempts to reach the Examiner by telephone are unsuccessful, the Examiner's supervisor, Vivek Srivastava can be reached on 571.272.7304. The fax phone number for the organization where this application or proceeding is assigned is 571.273.3000.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

JPM  
January 22, 2007



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